REGISTRATION PURSUANT TO CHAPTER E-14.2

OF THE ENVIRONMENTAL PROTECTION ACT, SNL 2002

ENVIRONMENTAL ASSESSMENT

FOR THE DEMOLITION OF THE EXISTING BRIDGE AND CONSTRUCTION OF A NEW BRIDGE ON NORTH ARM RIVER PROJECT 0041-25PSB ROUTE 90

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PROPONENT:

i. Name of Corporate Body

Department of Transportation and Infrastructure
Government of Newfoundland & Labrador

ii. Address

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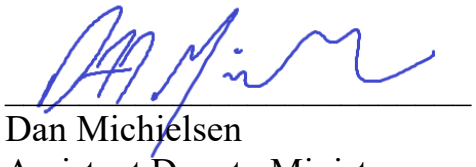
iii. Chief Executive Officer

Sean Dutton
Deputy Minister
729-3676

iv. Approval for Environmental Assessment Submission



November 21st, 2025
Date

Dan Michielsen
Assistant Deputy Minister
Assistant Deputy Minister of Transportation and Infrastructure
729-3796

v. Principal Contacts for the Purpose of Environmental Assessment

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THE UNDERTAKING:

(i) Name of the Undertaking

This submission is for the demolition of the current deteriorated bridge and construction of a new bridge, including a temporary bypass for North Arm River, Route 90. Its location falls on a scheduled salmon river.

(ii) Nature of the Undertaking

The construction of a permanent bridge and temporary crossing on North Arm River on Route 90, km 2.6.

Part A: Installation of a Temporary Traffic Diversion

Install temporary traffic diversion using culverts and rock fill, paving, and the removal of the temporary diversion.

Part B: Demolition of the Existing Structure and Construction of a New Bridge

Demolish the existing North Arm River Bridge and replace with a new precast concrete girder bridge. Construction of the new structure will include excavation, installation of steel H-piles, construction of concrete abutments and wingwalls, placement of precast concrete girders, construction of concrete deck, backfill activities in and around the stream, road alignment and paving work. The new structure will have a length of 20.5 m, width of 10.61 m and height of

approximately 1.1 m above high water level (with climate change).

(iii) Purpose / Rationale / Need for the Undertaking

The purpose of this project is to replace the aged and deteriorated bridge on North Arm River.

Description of the Undertaking

Geographic Location

The project location is on Route 90 at North Arm River. It is located 4 km northeast of the Trans Canada Highway (TCH) and 4 km southwest of Holyrood. The coordinates are Latitude 47.36896845°, Longitude -53.16691277°. Location images can be found in the Appendix.

There are no additional routing alternatives to replacing the bridge. It is an essential link on Route 90 and any alternative would not be feasible.

Physical Features.

As North Arm River is a Scheduled Salmon River, detailed design work and existing environmental conditions determine the type of structure which will be required and what modifications must be incorporated into the structure to allow for the necessary fish passage and environmental protection. The site is on a tributary of North Arm River northeast of the TCH. It was previously disturbed with the installation of the original bridge and is not pristine however is fully regenerated with naturally occurring vegetation species. This reach of North Arm River consists or riffle habitat at the crossing location and upstream and downstream of the bridge.

It is in part of the Maritime Barrens Ecoregion; Northeast Barrens subregion. During summer frequent fog and strong southerly winds make the Maritime Barrens one of the coldest ecoregions on the island of Newfoundland. The Northeast Barrens subregion, because of its northerly location, experiences less fog and wind, and warmer summer temperatures, than its southern counterparts.

Barrens are the most common landscape feature with bogs and fens occurring regularly reflecting poor drainage and wet climate in the ecoregion. Bogs are common. The forested areas mainly consist of balsam fir followed by black spruce and a scattering of white birch. Sheep laurel is the commonest heath shrub.

Fish species include Atlantic salmon, brown trout, rainbow smelt, brook trout, three-spined stickleback, and American eel. Mammals include moose, snowshoe hare, muskrat, otter, mink, red squirrel, little brown bat, meadow vole, masked shrew, eastern chipmunk, and short-tailed weasel. Most landbirds found in the forests are migratory breeders and include thrushes, sparrow, and warbler. Residential species include junco, chickadee, and grosbeak. Along the stream corridor swamp sparrow, snipe, yellowlegs or sandpiper may occur.

Potential receptors include travelers on route 90 providing linkage to the greater Conception Bay south area from the TCH. The town of Holyrood is located northeast approximately 3.5 kilometers.

The existing structure is a two-span concrete girder bridge, with each span measuring 7.5 meters. The bridge is approximately 9.2 meters wide and is supported by concrete abutments and a central concrete pier. The current bridge has a clearance height of approximately 1.7 m to the riverbed. The centre portion of the bridge was constructed in 1925 and consists of three rectangular concrete beams. In 1973, the bridge was widened by adding extensions on both sides, each consisting of two concrete double tee beams.

The structure is in a state of severe deterioration and requires replacement. In 2022, a traffic load restriction was implemented following a site visit that identified significant deterioration. Bridge inspections conducted by TI between 2019 and 2024 consistently reported the bridge in poor condition and recommended its replacement.

During the construction there will be a diversion located upstream from the existing bridge. The driving surface on approach to the temporary bridge structure is 8.6m in width (two lane) with an approximate length of the diversion at 496m. The crossing will consist of a Mabey Panel Bridge with a 33.54m span x 9.870 width. Special attention will be given to erosion and scour protection at inlet and outlet control areas.

The area needing to be cleared is within the existing Right Of Way and has been previously altered. It consists of grasses, sedges, and other herbaceous plants. The reach of the stream is rearing habitat for juvenile salmon and trout and a migration corridor (Beak Type 4) for adult salmon and trout. The substrate consists of gravel, pebble, rubble, and cobble.

The Department of Transportation and Infrastructure will consult with the Water Resources Management Division of the Department of Environment and Climate Change to ensure that the best available data is utilized to design the bridge. The Water Resources Management Division's Environmental Guidelines for work around watercourses will be used during the design and construction phases.

The bridge will be designed and constructed in consultation with Fisheries and Oceans Canada (DFO). A qualitative assessment of fish habitat along upstream and downstream areas adjacent to the crossing will be carried out. The bridge will be designed and constructed to have minimal impact on fish and fish habitat and in accordance with:

- DFO's Guidelines for Protection of Freshwater Fish Habitat in Newfoundland and Labrador (1998);
- DFO's Measures to avoid causing harm to fish and fish habitat (http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/measures-mesures-eng.html) and
- fish passage guidelines and other applicable guidelines and Fact Sheets

Construction

The project will encompass two parts:

1) Temporary Diversion:

A temporary diversion is proposed to be constructed parallel to and downstream of the existing bridge. The diversion shall have a 10.5 meter subgrade width and is to be constructed out of clean rock fill with 1.5:1.0 side slopes. Total length of the diversion is approximately 496m containing culverts. The finished elevation of the temporary structure will be comparable to the existing structure, providing ample

hydraulic capacity. Upon completion of the permanent structure the temporary diversion shall be completely removed and any disturbed ground within the existing right of way will be rehabilitated.

2) Existing/Proposed Structure:

The existing structure is a two-span concrete girder bridge, with each span measuring 7.5 meters. The bridge is approximately 9.2 meters wide and is supported by concrete abutments and a central concrete pier. The current bridge has a clearance height of approximately 1.7 m to the riverbed. The centre portion of the bridge was constructed in 1925 and consists of three rectangular concrete beams. In 1973, the bridge was widened by adding extensions on both sides, each consisting of two concrete double tee beams.

The structure is in a state of severe deterioration and requires replacement. In 2022, a traffic load restriction was implemented following a site visit that identified significant deterioration. Bridge inspections conducted by TI between 2019 and 2024 consistently reported the bridge in poor condition and recommended its replacement.

The Contractor shall submit a demolition plan for the old bridge to the Resident Engineer/Senior Environmental Planner for review and approval prior to commencing demolition work. Demolition and removal of the existing structure shall be carried out such that no significant debris enters the river. Busting of the existing structure while in place shall not be permitted. The Contractor shall ensure that all waste material from the bridge demolition is disposed of in accordance with the *Environmental Protection Act, SNL2002 CHAPTER E-14.2* and prior approval by the Department of Environment and Climate Change. The Contractor's Demolition Plan shall clearly demonstrate that there is compliance with all environmental requirements for the project and adhere to the Contractor's Responsibilities – Regulatory Agencies Section 805.

All work under this item will be in accordance with Section 919.04 of the Departments Specifications Book, MAINTENANCE OF TRAFFIC, except where superseded by the requirements of this or another Supplementary General Conditions. The Contractor shall construct a temporary paved bypass to a RLU 70 (Modified) standard to accommodate traffic. This work will also involve the design

and installation of a 496m, two lane temporary diversion downstream of the existing bridge. The temporary bridge and substructure shall be designed in accordance with CAN/ CSA S6-19, “Canadian Highway Bridge Design Code”.

Fording or moving equipment through the river, or across any other watercourse, will be strictly prohibited. Temporary culverts or temporary bridging are preferred at such locations where frequent fording would be required.

Bridge construction will meet RAU 80 standards and the design load is CL-625. The Department of Transportation and Infrastructure will be improving upon the hydrology of this crossing by increasing the opening (end area) and raising the grade of the new permanent structure to allow for 100 year flooding projections. It will be performed by contract forces. The various phases will involve:

(a) field surveys;
(b) temporary crossing installation;
(c) demolition of old bridge
(d) new bridge construction;
(e) clean-up and rehabilitation.

The potential sources of pollution during construction would be limited to the possible siltation of the river during subgrade construction. To prevent siltation within the river during construction the contractor shall use the mitigation in the Specification book, Sections 815, 816, 817, 818 and 845. In addition, the potential exists for hydrocarbon spillage from temporary fuel storage facilities. Contractors will be advised of the environmental requirements for stream crossings and for hydrocarbon spill reporting and the necessity of strict compliance.

Owner’s Policy (Division 8, General Specifications Book, 2011)

To ensure protection of the environment, the work at all times shall be subject to inspection by the staff of relevant municipal, provincial and federal agencies. Normally, all inspections other than by the Engineer will be arranged in advance through the Engineer. Any specific matters relating to environmental protection will be dealt with between the Contractor and the Engineer.

Any violations of environmental permits or authorizations or any environmental related incidents which are observed by inspectors representing regulatory agencies are to be reported by them prior to leaving the site to the Engineer. Except in emergency situations, environmental protection measures required by other agencies must be approved by the Engineer prior to implementation by the Contractor.

It is Owner's policy to protect the environment along the route of the project, in areas adjacent the route, and in associated work areas such as pit or quarry sites. DTW is committed to cost-effective environmental protection measures that will prevent serious or irreversible environmental damage through the planning and implementation phases of the project.

Protection of Vegetation and Wetlands

The Contractor shall be made aware that the work required in and around water crossings shall be performed with due care and caution so as to prevent undue disturbance to adjacent vegetation and the environment from construction activities and off Right Of Way travel (Section 850). Immediately following and during some construction activities, the Engineer may identify areas requiring seeding/sodding or stabilization by a method to prevent erosion. Damage or disturbance of vegetation and/or wetlands outside the ROW shall be re-vegetated and/or restored to the satisfaction of the Resident Engineer at the Contractor's expense (Section 855).

Storage and Handling of Fuels and Other Hazardous, Toxic, or Dangerous Material

All storage tank systems must be registered under and in compliance with Newfoundland Regulation 58/03, The Storage and Handling of Gasoline and Associated Products Regulations, 2003 before commencing operation. Registration does not apply to storage tank systems of a capacity less than 2500 litres that are connected to a heating appliance. Contractors shall supply verification of storage tank registration to the Engineer prior to the commencement of work (Section 820).

Contractor Environmental Mitigation Plan

A Contractor Environmental Mitigation Plan (**CEMP**), completed by the contractor and approved by DTW before work commences, is required for this project.

Elements required in a **CEMP** are:

- Pre-construction planning, including the identification project-environmental interactions (e.g., Valuable Ecosystem Components including: public and worker safety, wildlife, habitat, plants, resource users, etc.);
- Detailed environmental mitigation measures to avoid negative or irreversible environmental impacts;
- Contingency plans for unplanned events;
- List of DTW and Contractor contacts and reporting numbers; and
- Decommissioning Plan that includes site rehabilitation measures.

The potential for adverse environmental impacts during construction will be minimized as all construction activities will be undertaken in accordance with the environmental requirements of the Department of Transportation Specification Book for transportation projects.

Prohibitions

The following are directives for the Owner and Contractor in carrying out this project. Reference is also provided to the Section where this prohibition is located in Division 8.

- Contractors, subcontractors and their personnel shall not harass wildlife or waterfowl or unduly disturb fish (Section 805);
- No pesticides or other products shall be used without prior approval of the Owner and the Department of Environment and Climate Change (Section 810);

- The Contractor shall not wash equipment or containers, nor dump herbicides in or near any fresh or salt water bodies, or at any location where the herbicide may enter a body of water (Section 810);
- No person shall discharge into a body of water any sewage or effluent (Section 815);
- The use of equipment or machinery in a watercourse or water body is not permitted (Section 815);
- The contractor shall not ford a watercourse without prior approval from the Resident Engineer (Section 815);
- Silted or muddy water is not permitted to be released into any watercourse or water body or into any ditch or areas that leads directly to a watercourse or waterbody (Section 815.07);
- Smoking shall be prohibited within 10 m of a fuel storage area or during refueling operations (Section 820.03);
- Fueling or servicing of mobile equipment shall not be allowed within 100 m of a watercourse, water body, or designated wetlands (Section 820.03);
- The Contractor shall ensure that no servicing or washing of heavy equipment occurs adjacent to watercourses and designated wetlands. Fueling, servicing or washing of equipment shall not be allowed within 100 m of a watercourse (Section 820.04);
- No waste material shall be deposited in any watercourse or wetland (Section 825.01);
- There shall be no open burning of waste material, slash or grubbing material onsite. Rubber tires, waste oil, or similar material shall not be used to ignite slash or used to maintain the burning operation (Section 835);
- Unnecessary cutting of trees is to be avoided. Care will be taken during construction to prevent damage to trees and shrubs adjacent to the flagged clearing limits which are to remain after construction (Section 850);
- The Contractor shall not use living trees as survey marks and shall not cut blazes or otherwise mark live trees except with removable surveyor's tape and/or tags (Section 850);
- The Contractor shall limit equipment travel to the surveyed right-of-way and existing municipal and provincial roads. Use of equipment of any type is not permitted outside the clearing limits of the right of way without prior approval (Section 850); and
- Should any archaeological remains be encountered, such as stone, bone or iron tools, concentrations of bone, fireplaces, house pits and/or foundations,

work in the area of the find shall cease immediately in accordance with the Historic Resources Act (RSNL1990 CHAPTER H-4) (Section 860).

Operation

The bridge is a permanent operation. Winter maintenance will consist of snow clearing and the application of sand and salt for ice control.

The temporary bypass will serve to allow traffic to continue during the construction of the new bridge. It will be removed once the new bridge is open to traffic.

Occupations

The various types of occupations anticipated for this project include:

(a) Civil Engineers;
(b) Structural Engineers; 2231
(c) Engineering Technicians; 2231
(d) Road Surveyors; 2154
(e) Heavy Equipment Operators; 7521
(f) Drillers and Blasters; 7372
(g) Carpenters; 7271
(h) Heavy Equipment Mechanics; 7312
(i) Labourers; 7621
(j) Truck Drivers; 7511
(k) Concrete Finishers; 7282
(l) Concrete Technicians; 7282
(m) Material Technicians and Engineers; 2231
(n) Steel Erectors. 7236
(o) Senior Environmental Planner 2121

Contract completion is expected to be November 30, 2027. There is an estimate of approximately 50-100 general construction workers during the course

of building. Specialties may include 1-2 welders (2 weeks estimated), 5-10 rebar tiers (1 month estimated), 1-2 crane drivers (2 months estimated). All of the above could change depending on the contractor and when tender is awarded. Numbers and duration of employment of individuals can't be determined as the winning bidder, the Contractor, has the responsibility of choosing their own employees. This occurs after the project goes to tender which takes place only after the project receives approval from the EA process.

Project-related Documents

- Contractor Environmental Mitigation Plan.
- Department of Transportation and Infrastructure Specifications Manual

APPROVAL OF THE UNDERTAKING

The following is a list of the permits, licences, approvals that may be necessary for this project:

MAJOR REGULATORY APPROVALS BY TYPE AND AGENCY

Type of Permit	**Agency**
1. Stream crossing approvals	Dept. of Fisheries & Oceans
3. Stream crossing approval	Water Resources Management Division
4. Fuel storage & handling	Government Services
5. Solid waste disposal	Government Services
6. Commercial Cutting	Fisheries, Agriculture, and Lands
7. Environmental Assessment	Environment, Conservation and Climate Change

SCHEDULE

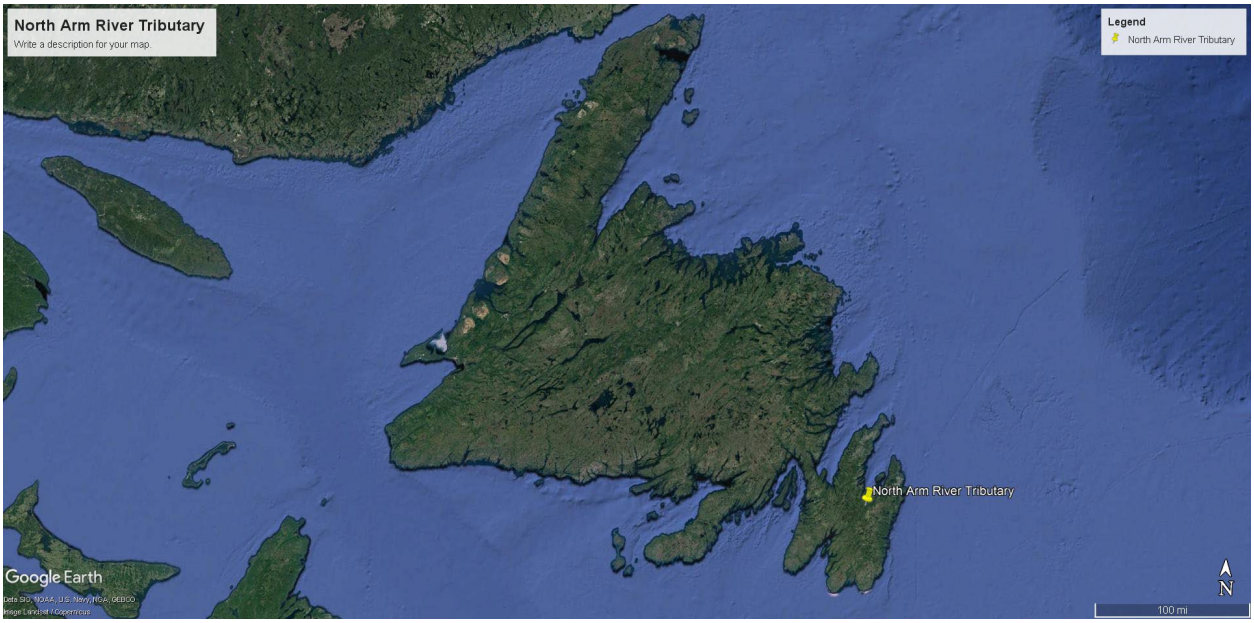
The Department of Transportation and Infrastructure would like to complete the requirements of the Environmental Assessment Act and seek approval for the project by 2026 02 28. A tender call could take place in fall of 2026 with construction starting shortly after.

FUNDING

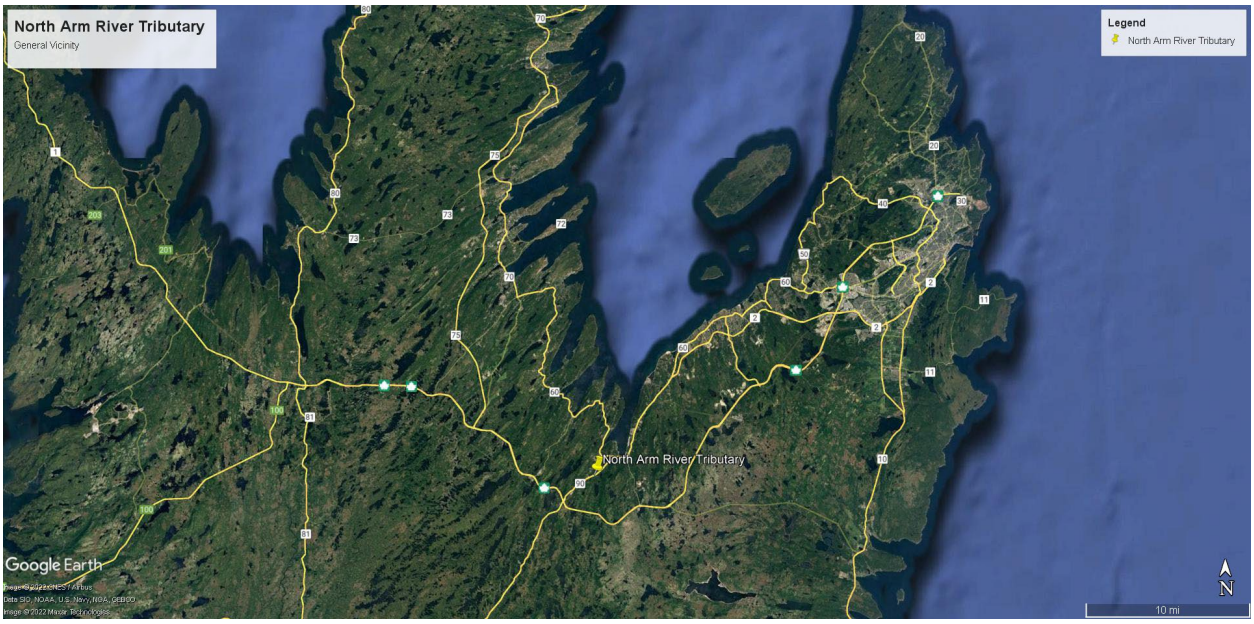
Due to the tendering process and competition between contractors with the costs involved the Department of Transportation and Infrastructure isn't in the position to reveal the potential cost of the project.

Appendix A

General Project Details



Map 1: Location on Island



Map 2: Overview of site and Nearby Receptors

Map 3: Close-up of Bridge Site

Photo 1: Upstream

Photo 2: Downstream